

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) A color matching method in which, when color reproduction ranges of a first device and a second device differ, image data within a color reproduction range of said first device is converted using a conversion parameter into image data within a color reproduction range of said second device, comprising the steps of:

obtaining data related to a first specific color of said first device and data related to a second specific color of said second device in a prescribed color space; and

determining a compression parameter in a direction of chroma for converting data in an input color space into data in an output color space by estimating a general shape of the input color space and output color space based on said obtained data related to the first specific color of said first device and related to the second specific color of said second device ~~calculating said conversion parameter by estimating the color reproduction range of said first device and the color reproduction range of said second device based on the respective data related to the specific color that are obtained.~~

Claims 2 – 7 (Canceled)

8. (Currently Amended) A color matching device for converting image data within a color reproduction range of a first device into image data within a color reproduction range of a second device using a conversion parameter when the color reproduction ranges of said first device and said second device differ, comprising:

an obtaining portion for obtaining data related to a first specific color of said first device and data related to a second specific color of said second device in a prescribed color space; and

a determination portion for determining a compression parameter in a direction of chroma for converting data in an input color space into data in an output color space by estimating a general shape of the input color space and the output color space based on said obtained data related to the first specific color and related to the second specific color that are obtained ~~calculating portion for calculating said conversion parameter by estimating the color reproduction range of said first device and the color reproduction range of said second device based on the respective data related to the specific color that are obtained.~~

9. (Previously Presented) A computer readable record medium storing a color matching program for having a computer execute a color matching method for converting image data within a color reproduction range of a first device into image data within a color reproduction range of a second device using a conversion parameter when the color reproduction ranges of said first device and said second device differ, wherein said color matching method includes the steps of:

obtaining data related to a specific color of said first device and data related to a specific color of said second device in a prescribed color space₁ and

determining a compression parameter in a direction of chroma for
converting data in an input color space into data in an output color space by
estimating a general shape of the input color space and the output color space
based on said obtained data related to the first specific color and related to the
second specific color ~~calculating a conversion parameter by estimating the color~~
~~reproduction range of said first device and the color reproduction range of said~~
~~second device based on the respective data related to the specific color that is~~
~~obtained.~~

Claims 10 – 11 (Canceled)

12. (New) The color matching method according to claim 1, wherein said first specific color and said second specific color include white points.

13. (New) The color matching method according to claim 1, wherein data of said first specific color and data of said second specific color include color temperatures of white points.

14. (New) The color matching method according to claim 12, wherein a white point correction parameter is determined based on said obtained data related to the first specific color and related to the second specific color.

15. (New) The color matching method according to claim 12, wherein a hue correction parameter of the input color space is determined based on said obtained data related to the first specific color.

16. (New) The color matching method according to claim 1, wherein said first specific color and said second specific color include a white point and a black point, respectively;

said color matching method further comprising the step of calculating a compression parameter in a direction of lightness of the input color space based on said obtained data related to the first specific color and related to the second specific color.

17. (New) The color matching method according to claim 1, wherein said first specific color and said second specific color include blue points, and

said compression parameter in the direction of chroma is determined based on at least one of data related to a white point and data related to a blue point.

18. (New) The color matching method according to claim 1, wherein said first specific color and said second specific color include a white point and a blue point, respectively,

said color matching method further comprising the step of determining a white color correction parameter based on data related to a white point of said first device and data related to a white point of said second device,

wherein said compression parameter in the direction of chroma is determined based on a difference between the chroma of a blue point in the input space subsequent to white point correction by said white point correction parameter and the chroma of a blue point of the output space.

19. (New) The color matching method according to claim 1, wherein said first specific color includes a white point, a blue point, a red point, and a green point, and said second specific color includes a white point,

said color matching method further comprising the step of determining a hue correction parameter based on data related to a blue point, a red point, and a green point of said first device,

wherein said compression parameter in the direction of chroma is determined based on data related to a white point of said first device and said second device.

20. (New) The color matching method according to claim 1, wherein said first specific color includes a white point, a blue point, a red point, and a green point, and said second specific color includes a white point, a blue point, a red point, a green point, a cyan point, a magenta point, and a yellow point,

said color matching method further comprising the step of calculating a second blue point from a blue point and cyan point of said second device, calculating a second red point from a red point and magenta point of said second device, and calculating a second green point from a green point and yellow point of said second device, and determining a hue correction parameter based on data related to a blue

point, red point, and green point of said first device and said calculated data related to a blue point, red point, and green point;

wherein said compression parameter in the direction of chroma is determined based on at least one of data related to a white point and data related to a blue point.

21. (New) The color matching method according to claim 1, wherein said first specific color and said second specific color include blue points, and

said compression parameter in the direction of chroma is determined based on data related to a white point and data related to a blue point.

22. (New) The color matching method according to claim 1, wherein said first specific color includes a white point, a blue point, a red point, and a green point, and said second specific color includes a white point, a blue point, a red point, a green point, a cyan point, a magenta point, and a yellow point,

said color matching method further comprising the step of calculating a second blue point from a blue point and cyan point of said second device, calculating a second red point from a red point and magenta point of said second device, and calculating a second green point from a green point and yellow point of said second device, and determining a hue correction parameter based on data related to a blue point, red point, and green point of said first device and said calculated data related to a blue point, red point, and green point;

wherein said compression parameter in the direction of chroma is determined based on data related to a white point and data related to a blue point.